

CBCS SCHEME

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15EE752

Seventh Semester B.E. Degree Examination, Dec.2018/Jan.2019 Testing and Commissioning of Power System Apparatus

Time: 3 hrs.

Max. Marks: 80

Note: Answer any FIVE full questions, choosing one full question from each module.

Module-1

- 1 a. Explain the principle of on load tap changer. (08 Marks)
b. Explain the meaning of insulation resistance. How is it measured for power transformer? (08 Marks)

OR

- 2 a. Explain the procedure of drying out of power transformer. (08 Marks)
b. Explain the standard vector groups of 3-phase transformer connections for 0° displacement and $+30^\circ$ displacement. Give the summary of common 3 phase's connections. (08 Marks)

Module-2

- 3 a. Explain the procedure of foundation of electric machine. (08 Marks)
b. Explain the principle of brushless excitation system. (08 Marks)

OR

- 4 a. Explain the sudden three phase short circuit test on a 3 phase generator. Explain how to calculate x'_d , x''_d and x_d from sudden 3ph.S.C.test. (10 Marks)
b. State the routine tests required for a synchronous generator. (06 Marks)

Module-3

- 5 a. State the various abnormal conditions in Induction motors and which are the protections provided against each. (10 Marks)
b. Explain the term efficiency of an Induction motor. How can it be calculate from the data obtained from the no load test and locked rotor test. (06 Marks)

OR

- 6 a. Explain the various methods of measuring the slip of an Induction motor. (08 Marks)
b. State the various steps in installation of a large rotating machine received in dismantled condition. (08 Marks)

Module-4

- 7 a. State the factors to be considered while selecting a cable. (08 Marks)
b. Explain the various aspects to be considered in laying underground cables. (08 Marks)

OR

- 8 a. Describe the steps to be taken after occurrence of fault in underground high voltage cable. (06 Marks)
b. Explain the radar method of locating cable fault. (10 Marks)

Module-5

- 9 a. State the various type tests and routine tests performed on High voltage a.c. circuit breakers. (08 Marks)
b. Explain protective Devices in residential electrical installation. (08 Marks)

OR

- 10 a. State the various steps in installation and commissioning of outdoor circuit breaker. (08 Marks)
b. Describe typical low voltage, 3 phase, 4 wire and single phase AC supply system for residential building. (08 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and/or equations written eg. $42+8=50$, will be treated as malpractice.